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(71) Applicant: **Innovative Air Products, Inc.**
Wauconda, Illinois 60084 (US)

(72) Inventor: **Feldman, Robert M.**
West Newton, Massachusetts 02165 (US)

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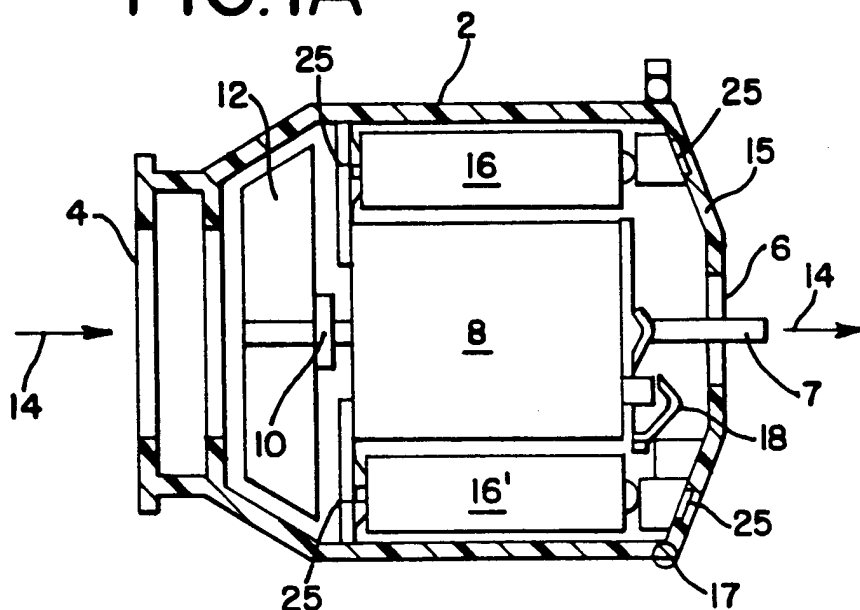
(74) Representative: **Greenwood, John David et al**
Graham Watt & Co.
Riverhead
Sevenoaks Kent TN13 2BN (GB)

(54) **Inflator with drop-in batteries and universal adapters**

(57) A portable, battery powered inflator with removable batteries (16,16') which are switch (18) activated. The inflator has an air intake (4) and output (6) for delivering air into a variety of air bladders with different sized valves. The batteries (16,16') are typical dry cells and not rechargeable to save cost. The inflator has a

cover (15) that allows quick removable and replacement of the batteries. An adapter assembly including a transition structure and adapters (38,38') are provided to allow inflation of a variety of bladders having different sized valves. The attaching of the transition structure engages the switch (18) completing an electrical circuit that activates the motor (8) to deliver air automatically.

FIG. 1A



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EUROPEAN SEARCH REPORT

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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
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Y	US 5 111 838 A (LANGSTON LONNIE W) 12 May 1992 (1992-05-12) * column 1, line 60 - column 4, line 34; figure 1 *	7	
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The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 2 December 1999	Examiner Ingelbrecht, P
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document</p>			

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CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing more than ten claims.

☐ Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims and for those claims for which claims fees have been paid, namely claim(s):

☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims.

LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet B

☐ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.

☐ As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.

☒ Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:

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☐ None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:



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LACK OF UNITY OF INVENTION
SHEET B

Application Number
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The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. Claims: 1-6

An inflating apparatus comprising a battery compartment within the inflator housing for housing one or more removable batteries, said battery compartment having a cover for providing access to said battery compartment

2. Claim : 7

An inflator apparatus for inflating a bladder having a valve including a sealing mechanism movable between at least opened and closed positions, wherein a post extending centrally from the air outlet moves said sealing mechanism from said closed position to said open position when said inflator apparatus is mated with said valve of said bladder

3. Claims: 8-12

An inflator apparatus including a transition structure having a transition structure inlet for mating with the outlet of said apparatus, and a transition structure outlet, a plurality of adapters for interconnecting said transition structure to the valve of a bladder, each of said adapters having an adapter inlet for mating to said transition structure outlet and an adapter outlet of each of said adapters having different sizes

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
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